

In Reply: We agree with Dr Larson and colleagues that there are reassuring aspects to our study, although for different reasons than they discuss. Service members who accessed mental health care did so within 2 months of returning from deployment, and most mental health care did not result in serious diagnoses. The distinction between symptoms of PTSD and the diagnosis of PTSD is often missed in media reports. The Department of Defense has been working to reduce stigma and encourage service members to seek care early before symptoms become severe or chronic. Our study suggested that many service members are receiving preventive mental health services shortly after returning from deployment.

Some of the arguments of Larson et al are not well supported by available data. Service members who are found fit to deploy are likely to be healthier than the military population at large. Thus, the most valid comparisons are between service members who have deployed to different locations during the same time period. Our study showed that soldiers and Marines who had deployed to Iraq experienced significantly higher rates of mental health concerns, referral to mental health care, use of mental health services, and attrition from military service compared with those who had deployed to Afghanistan or other locations.

Furthermore, mental health outcomes were correlated with combat experiences. Combat veterans are at higher risk for psychiatric problems than military personnel who have served in noncombat locations, and a higher frequency and intensity of combat is associated with a higher risk.

Comparing hospitalization rates among deployed service members and recruits is not valid because recruits have elevated rates during their training period due to preexisting conditions and other factors.¹ There are problems comparing results from deployed and nondeployed personnel during different periods (1990s vs current). The rate of utilization of services for mental disorders in the OIF population (84.1 per 1000 per year) was 33% higher than baseline rates among all service members in the 1990s (62.7 per 1000 per year).² However, there has also been a marked increase in the use of nonspecific *International Classification of Diseases, Ninth Revision (ICD-9)* codes in military mental health clinics compared with data from before OIF,³ which may reflect efforts to avoid stigmatization of mental health treatment, as well as the increased focus on prevention. Finally, a short self-administered questionnaire pertaining to the immediate postdeployment period cannot be validly compared with lifetime prevalence rates derived from structured diagnostic interviews from the National Comorbidity Survey.

We agree with Dr Fiellin and colleagues that our study should not be used to project resource needs pertaining to substance use disorders among Iraq combat veterans. The PDHA does not include questions about alcohol or substance use, and the health care utilization data likely cannot be used to accurately estimate the prevalence rates of specific substance use disorder diagnoses because clini-

cians do not always code all diagnoses. Data from another study that used a 2-item alcohol screen developed for primary care settings showed that 20% to 35% of soldiers and Marines surveyed anonymously 3 months after returning from Iraq answered "yes" when asked if "you had used more alcohol than you meant to" in the past month or "felt you wanted or needed to cut down on your drinking."⁴ This compared with 13% to 17% at predeployment. There is also high comorbidity of PTSD and substance use disorders.

We agree that prevention of alcohol and substance use should remain a high priority. The new health reassessment instrument that is being implemented at 3 to 6 months after deployment does include the 2-item screen to prompt health professionals to ask further questions about alcohol and substance use and facilitate access to care. In addition, soldiers receive training in the immediate postdeployment period that includes substance misuse prevention.^{5,6}

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RESEARCH LETTER

Epidemiology of Injuries and Deaths From Landmines and Unexploded Ordnance in Chechnya, 1994 Through 2005

To the Editor: Due to more than a decade of armed conflict and civil unrest, Chechnya is among the settings most affected by landmines and unexploded ordnance worldwide.¹ We undertook this study to assess the magnitude and describe epidemiologic patterns of injuries and deaths due to landmines and unexploded ordnance in Chechnya.

Methods. We obtained data on landmine and unexploded ordnance injuries in Chechnya from 1994 through 2005 from the United Nations Children's Fund and Voice of the Mountains, a Chechen nongovernmental organization.

In October of 2000, Voice of the Mountains in collaboration with the United Nations Children's Fund began collecting data on injuries that occurred since 1994 and on new injuries. Injury reports were obtained from a variety of sources, including the International Committee of the Red Cross, local nongovernmental organizations, district administrations, district health facilities, and local police stations. Deaths were attributed to injuries only if they occurred within 1 month of the event. Using the reported address, trained nongovernmental organization staff interviewed the injured person or the family of a person who had died, verifying the information obtained from reporting organizations. The Information Management System for Mine Action² form, which conforms to the standard questionnaire of the World Health Organization,³ was used for data collection. Only data on civilian noncombatants were included in the database. We used results of the official population census conducted in Chechnya in October of 2002⁴ (1.08 million inhabitants), which reportedly included refugees and internally displaced persons, as a denominator to calculate injury rates. Statistical analyses were performed using JMP software version 5.0 (SAS Institute Inc, Cary, NC). The Institutional Review Board of the Centers for Disease Control and Prevention exempted this study from review.

Results. The database included information on 3021 individuals injured or killed by landmines or unexploded ordnance. The largest number of injuries occurred during 2000 and 2001 (716 and 640, respectively), resulting in population injury rates of 6.6 per 10 000 per year in 2000 and 5.9 per 10 000 per year in 2001. Injury rates in 1999 and 2002 were also high, 3.4 and 4.0 per 10 000 per year, respectively. Injury rates in 2003, 2004, and 2005 were 1.9, 0.9, and 0.2 per 10 000 per year, respectively.

Overall, 81% of reported injuries were in males, and 26% were in children under 18 years of age. Of those injured, 23% died as a result of the accident. Children were more likely to be injured by unexploded ordnance and to sustain upper body injury and upper limb amputations compared with adults (TABLE). Most injuries that occurred while the person was traveling or performing activities of economic necessity (farming; tending animals; collecting wood, food, or water) were caused by landmines, while most injuries that occurred while the person was playing near an explosive device or tampering with it were caused by unexploded ordnance.

Comment. This study shows that over the past decade, the civilian population in Chechnya experienced rates of landmine and unexploded ordnance injuries several times

Table. Distributions of Injuries and Deaths Due to Landmines and Unexploded Ordnance in Chechnya, 1994 Through 2005, by Age Group (N = 3021)*

	Child (0-17 Years)	Adult (18 Years and Older)	Total
Injuries and deaths, No. (% of total)	772 (25.6)	2249 (74.4)	3021 (100.0)
Sex			
Male	634 (82.1)	1817 (80.8)	2451 (81.1)
Female	138 (17.9)	432 (19.2)	570 (18.9)
Type of explosive device			
Antipersonnel mine	223 (28.9)	781 (34.7)	1004 (33.2)
Antitank mine	34 (4.4)	189 (8.4)	223 (7.4)
Booby trap	65 (8.4)	149 (6.6)	214 (7.1)
Other unexploded ordnance	255 (33.0)	637 (28.3)	892 (29.5)
Unknown	195 (25.3)	493 (21.9)	688 (22.8)
Activity at the time of injury			
Traveling on foot	74 (9.6)	209 (9.3)	283 (9.4)
Traveling in vehicle	55 (7.1)	341 (15.2)	396 (13.1)
Collecting wood/food/ water	56 (7.3)	228 (10.1)	284 (9.4)
Farming	36 (4.7)	177 (7.9)	213 (7.1)
Tending animals	58 (7.5)	131 (5.8)	189 (6.3)
Playing/recreation	105 (13.6)	62 (2.8)	167 (5.5)
Tampering with explosive	117 (15.2)	201 (8.9)	318 (10.5)
Passing/standing nearby	173 (22.4)	572 (25.4)	745 (24.7)
Other/unknown	98 (12.7)	328 (14.6)	426 (14.1)
Injury type			
Death	131 (17.0)	556 (24.7)	687 (22.7)
Upper body injury	274 (35.5)	566 (25.2)	840 (27.8)
Lower body injury	154 (20.0)	490 (21.8)	644 (21.3)
Upper and lower body injury	183 (23.7)	590 (26.2)	773 (25.6)
Unknown	30 (3.9)	47 (2.1)	77 (2.5)
Amputations among survivors of injury			
Upper limb amputations	93 (12.1)	92 (4.1)	185 (6.1)
Lower limb amputations	107 (13.9)	375 (16.7)	482 (16.0)

* Data are presented as number (% of age group), except as noted.

higher than those reported for the same period from other highly affected regions. Rates of injury reported from Chechnya, Afghanistan, Angola, and Cambodia in 2000 were approximately 6.6, 0.5, 0.7 and 0.6 per 10 000 per year, respectively.¹

A higher proportion of children in Chechnya were injured by unexploded ordnance compared with adults, as in Afghanistan,⁵ Bosnia, and Herzegovina.⁶ Because unexploded ordnance are usually more visible than landmines, these injuries may be more amenable to prevention through targeted educational messages.

Although injury rates in Chechnya have been decreasing since 2002, the threat may rise as the security situation improves and population movement and economic activity increases. Therefore, identification and marking of dangerous areas followed by substantial mine clearance efforts are urgently needed. If troops are withdrawn, it will be critical

to clear minefields that were originally laid to protect military encampments, checkpoints, and other military objects.

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CORRECTION

Omission of Financial Disclosure Information: In the Editorial entitled "Thyroid Disease 60 Years After Hiroshima and 20 Years After Chernobyl" published in the March 1, 2006, issue of *JAMA* (2006;295:1060-1062), the financial disclosure information provided by the author at the time the Editorial was accepted was inadvertently omitted. Dr Boice had reported that he has provided expert testimony concerning thyroid cancer among persons living near the Hanford nuclear site, an involvement that has ended.